

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐ _____							

Work Order ID 162581

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162581

Page 2

Item ID: D350-836-019 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Crosstube Antenna Mount AS350 / AS355
Start Date: 7/3/2017 Start Qty: 4.00 ***4*** Cust Item ID:
Required Date: 7/5/2017 Req'd Qty: 4.00 ***4*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	Identify as per dwg & Stock Location: _____	0.00							
130									
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D350-836-019								
	Location: _____								
	PPP Rev: _____								
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.40							
Quality Control									

JUL 11 2017

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Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐								
Misidentified ☐	Past Due ☐	OTHER : ☐							

Picklist Print

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Page 1

Work Order ID: 162581

162581

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 7/3/2017

Required Date: 7/5/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP REV:A 13.07.18 AS PER ECN13-561 DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4853-1		Manufactured	No			110	Each	0.0000	1	4			
D4853-1									**	B161854		JUN 27 2017	DAS 27 9-89
Top Bracket	DAS 9 9-89												
D4854-1		Manufactured	No			110	Each	1.0000	1	4			
D4854-1	DAS 9 9-89								**	3X B161946		JUN 27 2017	DAS 27 9-89
Lower Bracket	DAS 9 9-89												
				<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>							
				st526	1								
				159107	1								
D4855-1		Manufactured	No			110	Each	9.0000	1	4			
D4855-1	DAS 9 9-89								**			JUN 27 2017	DAS 27 9-89
Antenna Bracket	DAS 9 9-89												
				<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>							
				st526	9								
				158888	9								
D2732-030		Manufactured	No			110	Each	250.0000	2	8			
D2732-030	DAS 9 9-89								**			JUN 27 2017	DAS 27 9-89
Rubber Cushion - 3"	DAS 9 9-89												
				<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>							
				FG	100								
				158347	100								
				ST410	150								
				162073	150								

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐				
OTHER : ☐									

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Work Order ID: 162581

162581

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 7/3/2017

Required Date: 7/5/2017

Start Qty: 4.00

Required Qty: 4.00

AN4-16A Purchased No

110 Each 206.0000 2 8

AN4-16A

**

Bolt

DAS
9
9-89

Location

Loc Qty

Loc Code

FG

5

121541

5

ST343

201

M136986

1

M137507

200

AN4-11A Purchased No

110 Each 149.0000 2 8

AN4-11A

**

BOLT

DAS
9
9-89

Location

Loc Qty

Loc Code

FG

20

120731

20

ST344

129

M137495

129

NAS1149D0432J Purchased No

110 Each 1,083.000 8 32

NAS1149D0432J

**

WASHER

DAS
9
9-89

Location

Loc Qty

Loc Code

GA

24

m131026

24

ST260a

1000

m137459

1000

ST264

59

m134676

59

DAS
6
9-89

JUN 27 2017

DAS
27
9-89

DAS
6
9-89

JUN 27 2017

DAS
27
9-89

DAS
6
9-89

JUN 27 2017

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																											
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval																																																								
Description Work Order Deviation				Disposition				Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____																																																							
Root Cause		FAULT CATEGORY																																																													
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____	
Misidentified ☐	Past Due ☐																																																														

Picklist Print

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Work Order ID: 162581

162581

Parent Item: D350-836-019

D350-836-019

Parent Item Name: Crosstube Antenna Mount AS350 / AS355

Start Date: 7/3/2017

Required Date: 7/5/2017

Start Qty: 4.00

Required Qty: 4.00

MS21042L4

Purchased

No

110

Each

2,331.000

4

16

MS21042L4

**

Nut

DAS
6
9-89

JUN 27 2017

DAS
27
9-89

DAS
9
9-89

Location

Loc Qty

Loc Code

FP001

10

m133363

10

GA

51

m135058

51

OVER007

1400

m137402

400

m137680

1000

ST303

870

m137544

870

16

DQA: _____ Date: _____



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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date: _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
☐ Environment	☐ Design	☐ Doc/Data	☐ Equip/Tooling	☐ Handling/Pre	☐ Material	☐ Internal Transport	☐ Tribal Knowledge
☐ LOA	☐ Substation	☐ Past Expiry Date	☐ Misidentified	☐ No Re-verification	☐ Operator	☐ Offset/Setup	☐ Supplier
				☐ Training	☐ Use for Testing	☐ Poor Information	☐ Rushing
				☐ Product Improvement	☐ Process Improvement	☐ Manufacturing Process	☐ Past Due
				☐ Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ OTHER : _____			
				☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes			
				☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center			
				☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence			

5. PARTS LIST

DAS
9
9-89

Qty -019	Qty -111	Part Number	Description
X		D350-836-019	CROSSTUBE ANTENNA MOUNT KIT AS350/355 (P162-350)
	X	D206-836-111	CROSSTUBE ANTENNA MOUNT KIT UNIVERSAL (P162-U)
1	1	D4853-1	TOP BRACKET (REPLACES P/N G13013-1)
	1	D4853-3	TOP BRACKET (REPLACES P/N G13013-5)
	1	D4853-5	TOP BRACKET (REPLACES P/N G13013-7)
	1	D4853-7	TOP BRACKET (REPLACES P/N G13013-9)
1	1	D4854-1	LOWER BRACKET (REPLACES P/N G13013-2)
	1	D4854-3	LOWER BRACKET (REPLACES P/N G13013-6)
	1	D4854-5	LOWER BRACKET (REPLACES P/N G13013-8)
	1	D4854-7	LOWER BRACKET (REPLACES P/N G13013-10)
1	1	D4855-1	ANTENNA BRACKET (REPLACES P/N G13013-3)
2	2	D2732-030	RUBBER CUSHION (REPLACES P/N G13013-4)
2	2	AN4-16A	BOLT
2	2	AN4-11A	BOLT
8	8	NAS1149D0432J	WASHER
4	4	MS21042L4	LOCKNUT

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Draw Nbr	Revision Nbr				
GA202-1	A				
100	Document Control	JUN 21 2017	0.00		
100					
DC	Memo		0.00		
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels as per PPP D350-836-019 CH001				
110	Pick Kit		0.00		
110					
Packaging	Memo		0.00		
Packaging					
120	QC4- 100% Inspect kits for completeness		0.00		
120					
QC	Memo		0.12		
Quality Control					

United States of America
Department of Transportation - Federal Aviation Administration
Supplemental Type Certificate

Number SR02253SE

This certificate, issued to

**Dart Aerospace USA, Inc.
190 S. Danebo Ave.
Eugene, OR 97402**

*certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part * of the * Regulations.*

Original Product—Type Certificate Number: * See attached Federal Aviation Administration (FAA)
Make: Approved Model List (AML) SR02253SE for a list of
Model: approved models and applicable airworthiness regulations

Description of the Type Design Change: Fabrication of Geneva Aviation P162 Cross-Tube Antenna Mounts in accordance with Master Drawing List GA202, Revision "--," dated September 30, 2011, or later FAA-approved revision; and installation and maintenance of this assembly in accordance with the documents shown on AML SR02253SE.

This supplemental type certificate does not include approval or installation of any antenna.

Limitations and Conditions: Approval of this change in type design applies to the rotorcraft listed in AML SR02253SE only. This approval should not be extended to other rotorcraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the relationship between this change and any of the other previously approved modifications, including changes in type design, will introduce no adverse effect upon the airworthiness of that helicopter. A copy of this certificate, AML SR02253SE, and the appropriate Instructions for Continued Airworthiness as listed on AML SR02253SE, must be maintained as part of the permanent records of the modified rotorcraft.

If the holder agrees to permit another person to use this certificate to alter the product, the holder shall give the other person written evidence of that permission.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application: September 30, 2012

Date reissued: January 16, 2013; October 28, 2015

Date of issuance: December 21, 2012

Date amended:



By direction of the Administrator


(Signature)


Manager, Seattle Aircraft Certification Office
(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47.